

REMARKS/ARGUMENTS

By this Response, no claims are amended, cancelled, withdrawn or added. Claims 1-33, 42, 45, 48, 51, and 52 were previously cancelled. Accordingly, claims 34-41, 43, 44, 46, 47, 49, 50, and 53-58 are currently pending in the application.

Allowable Subject Matter

In the Office Action, claims 35, 36, 49, 50, 56, and 57 have been allowed.

Rejection Under 35 U.S.C. 103(a)

In the Office Action, claims 34, 37-41, 43, 44, 46, 47, 53-55, and 58 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,790,536 (Mahany et al.) in view of U.S. Patent No. 6,275,166 (del Castillo et al.), and further in view of U.S. Patent No. 5,673,252 (Johnson et al.). Applicant respectfully traverses the rejection.

Mahany et al. disclose a hierarchical communication system (Abstract, Figure 1c). The communication system includes a host computer 55 connected to access points 56, 57, 58, 59, which together provide an infrastructure for a premises LAN (col. 11, lines 39-44, Figure 1c). The access points may be hardwired together or accessible to each other and the host computer via wireless links (col. 11, lines 45-49). The access points communicate with mobile computing devices 61, 62, 63, 64, 65, 66 via wireless links (col. 11, lines 50-51). The mobile computing devices, in turn, communicate with peripheral devices via other wireless links to form peripheral LANs (col. 12, lines 8-9). The communication protocol for the premises LAN using a basic access interval 200 (Figure 2) structure, in which multiple time division multiple access (TDMA) slots may be positioned at various places within the access interval (col. 12,

line 64 through col. 14, line 31, Figures 21-24). Messages destined for the devices may be buffered at control points, and delivered during appropriate points in an access interval according to a request/response access protocol (col. 17, line 28 through col. 18, line 46). Power managed devices may employ sleep algorithms synchronized to sleep for multiple access intervals, and to activate to receive various messages (e.g., SYNC, HELLO and pending messages) (col. 31, lines 8-12; col. 35, lines 45-49). Computing devices may enter the network by obtaining operating parameters and acquiring access (col. 37, lines 38-60). The system may communicate with devices using frequency hopping or single frequency communications (col. 40, line 61 through col. 41, line 4). A specific embodiment of a hierarchical communication system deployed in a warehouse environment also is disclosed (col. 43, line 19 through col. 46, line 16, Figures 28a, 28b).

Del Castillo et al. disclose an appliance management system 10 for managing a distributed array of appliances, where the system includes a headend control station (HCS) 14 and a distributed array of appliance management stations (AMS) 12, which communicate with each other via wireless, satellite communications (col. 3, line 64 through col. 4, line 7; Figure 1). Some of the AMSs 12 may function as relay units (col. 4, lines 62-63).

Johnson et al. disclose a wide area communications network for communicating data from a plurality of network service modules (NSMs) 110 to a central data terminal (CDT) 120 (see Figure 1 and col. 9, lines 46-56). The network includes the CDT 120, a plurality of intermediate data terminals (IDTs) 114, a plurality of remote cell nodes (RCNs) 112, and a plurality of the NSMs 110 (see Figure 1 and col. 9, lines 46-56). NSMs 110 (e.g., utility meters, alarms, vending machines, pay phones) perform data acquisition functions, and are linked to the wide area network via radio frequency (RF) channels (see col. 9, line 65 through

col. 10, line14). NSMs 110 may transmit information to an RCN 112 and may receive RCN synchronization signals and/or command signals from an RCN 112 (*see* col. 10, lines 36-61). RCNs 112 are located within a geographical area, and communicate with NSMs 110 over wireless links (*see* col. 17, line 51 through col. 18, line 46). Information received from NSMs 110 at RCNs 112 may be accumulated and periodically forwarded to an IDT 114 via a radio communications link or a cable link (*see* col. 18, lines 62-67, and col. 22, lines 38-61). IDTs 114 receive and store information from RCNs 112, and transmit the information to the CDT 120 via a telephone line or other communications channel (*see* col. 23, lines 1-25). The CDT 120 controls network operation (*see* col. 23, lines 44-53).

Applicant's claim 34 includes at least the following features, which distinguish claim 34 from that which is disclosed by Mahany et al., del Castillo et al., Johnson et al., or their combination:

“. . . a plurality of additional second-tier base stations wirelessly coupled in series to the first second-tier base station, wherein the plurality of additional second-tier base stations are intermediate the first second-tier base station and the plurality of remote units, and wherein the first second-tier base station is capable of communicating with a second-tier base station of the plurality of second-tier base stations without an intervening first-tier base station using a different communications protocol from the first communications protocol . . .”

Amended claims 47 and 55 include similar features, as do the claims that depend from independent claims 34, 47, and 55.

Neither Mahany et al., del Castillo et al., Johnson et al., nor their combination teach or suggest all of the features of claims 34, 47, and 55 or the claims that depend therefrom. Among other claimed elements and element combinations, neither Mahany et al., del Castillo et al., Johnson et al., nor their combination disclose “a plurality of additional second-tier base stations wirelessly coupled in series to the first second-tier base station . . .”

Accordingly, Applicant believes that claims 34, 37-41, 43, 44, 46, 47, 53-55, and 58 are allowable over Mahany et al., del Castillo et al., and Johnson et al. Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 34, 37-41, 43, 44, 46, 47, 53-55, and 58 based on the above remarks, and allow these claims.

I. CONCLUSION

In view of Applicant's remarks, it is respectfully submitted that Examiner's rejections have been overcome. Accordingly, Applicants respectfully submit that the application is now in condition for allowance, and such allowance is therefore earnestly requested. Should the Examiner have any questions or wish to further discuss this application, Applicants request that the Examiner contact the Applicants' attorneys at 480-385-5060.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

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